Listing of Claims

The following listing of claims replaces any pending claims. Inserted text is shown as underlined ("___") and deleted text is shown as stricken ("—").

1. (Previously Presented) An apparatus for adjusting the frequency response of a speaker system, the apparatus comprising:a user interface configured to receive user-adjustable variables indicative of main speaker low frequency characteristics; and

a compensation circuit configured to produce a desired high-pass signal from an input, the compensation circuit comprising:

a desired transfer function circuit having frequency response characteristics analogous to a desired crossover-main speaker combination;

an equivalent circuit having frequency response characteristics analogous to a main speaker; and

a deconvolution circuit configured to deconvolve the main speaker characteristics from the desired crossover-main speaker combination characteristics.

2. (Previously Presented) The apparatus of claim 1, wherein the user-adjustable variable comprises at least one variable selected from the group consisting of:

a main speaker low frequency cutoff frequency;

a main speaker low frequency damping factor;

a speaker sensitivity factor;

a speaker enclosure type; and

a gain factor.

3. (Currently Amended) A crossover system for adjusting the frequency response of a speaker system, the crossover system comprising:

a user interface configured to directly receive user-adjustable variables from a user, the user-adjustable variables being indicative of main speaker low frequency characteristics, wherein the user-adjustable variables comprise at least one variable selected from the group consisting of: a main speaker low frequency cutoff frequency, a main speaker low frequency damping factor, a speaker sensitivity factor, and speaker enclosure type; and

a compensation circuit configured to produce a desired high-pass signal from an input signal in response to the user-adjustable variables.

4. (Currently Amended) A crossover system for adjusting the frequency response of a speaker system, the crossover system comprising:

a user interface configured to directly receive user-adjustable variables from a user, the user-adjustable variables being indicative of main speaker low frequency characteristics; and

a compensation circuit configured to produce a desired high-pass signal from an input signal in response to the user-adjustable variables, ~~The system of claim 3~~, wherein the compensation circuit further comprises:

a desired transfer function circuit having frequency response characteristics analogous to a desired crossover-main speaker combination;

an equivalent circuit having frequency response characteristics analogous to a main speaker; and

a deconvolution circuit configured to deconvolve the main speaker characteristics from the desired crossover-main speaker combination characteristics.

5-9. Cancelled

10. (Currently amended) A method for adjusting the frequency response of a speaker system, the method comprising the steps of:

directly receiving user-adjustable settings from a user, the user-adjustable settings being indicative of main speaker low frequency characteristics, wherein the main speaker low frequency characteristics comprises at least one characteristic selected from the group consisting of a low frequency cutoff frequency, a low frequency damping factor, a speaker sensitivity factor, and a speaker enclosure type; and

producing desired frequency response characteristics in response to the user adjustable settings.

11. (Canceled)

12. (Currently Amended) A method for adjusting the frequency response of a speaker system, the method comprising the steps of:

directly receiving user-adjustable settings from a user, the user-adjustable settings being indicative of main speaker low frequency characteristics; and

producing desired frequency response characteristics in response to the user adjustable settings, ~~The method of claim 10~~, wherein the producing step further comprises the steps of:

generating a combined system response from the user adjustable settings, the combined system response having frequency response characteristics of a desired combined system;

generating an equivalent speaker response from the user adjustable settings, the equivalent speaker response having frequency response characteristics of the main speaker; and

deconvolving the equivalent speaker response from the combined speaker response to produce a compensated response.

13-19. Cancelled